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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,434	02/11/2002	Paul W. Novell	0325.00530	4793

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EXAMINER

KNOLL, CLIFFORD H

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,434

Applicant(s)

NOVELL ET AL.

Examiner

Clifford H. Knoll

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 22-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 17-21 is/are allowed.
6) ☒ Claim(s) 1-16, 22 and 23 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 11 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is responsive to communication filed 3/24/05. Currently claims 1-23 are pending.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

1. *Claims 1-10, 13-16, and 23 are rejected under 35 U.S.C. 102(a) as being anticipated by OTG Supplement to the USB Specification 1.0 (OTG specification).*

Regarding claims 1-5, 7-8, and 16, the OTG specification discloses the first circuit and legacy USB device configured to communicate as a host (e.g., §3.1; §5.3.4, "standard host"), a second circuit and DRD device configured to communicate through a second interface as a host or peripheral (e.g., §3.2), and a third circuit to control the circuits and transfer information (e.g., §6.3).

Regarding claim 6, the OTG specification also discloses the second device comprises a legacy USB device (e.g., §3.1, "compliant").

Regarding claim 9, the OTG specification also discloses the third circuit is a device selected from a group consisting of a microcontroller, ASIC, and PLD (e.g., §6.8, "state machine").

Regarding claim 10, the OTG specification also discloses configuring the third circuit in response to a computer executable instruction (e.g., §6.5, §6.8.1).

Regarding claim 13, the OTG specification also discloses that the apparatus is integrated with the first device (e.g., §3.2, “fully compliant”).

Regarding claim 14, the OTG specification also discloses that the apparatus is a stand-alone accessory (e.g., §3.3).

Regarding claim 15, the OTG specification also discloses adding USB OTG DRD capabilities to the first device with no modifications to the first device (e.g., §3.2, “fully compliant”).

Regarding claim 23, the OTG specification also discloses the first circuit operating in response to control signals (e.g., §5.3.3), and a first analog block that is configured to control or detect VBUS pulsing (e.g., §5.3.4), the second circuit control signals (e.g., §5.3.3) and VBUS pulsing (e.g., §5.3.4), and the third circuit’s generation of one or more first and second control signals (e.g., §6.3 “control of a connection”)

Claim Rejections - 35 USC § 103

2. *Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the OTG specification, as applied in the parent claim, in view of standard means of holding executable instructions, as evidenced by McAlear (US 6721332).*

Regarding claims 11 and 12, the OTG specification does not expressly mention use of firmware and software; however Examiner takes Official Notice that this is

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broadly known as a useful means to hold and execute instructions, as evidenced by McAlear. McAlear discloses firmware instructions (e.g., col. 20, lines 32-25). It would have been obvious to combine firmware storing with the OTG specification, because using firmware is a standard means to hold computer instructions in a useful format for execution. Therefore, it would have been obvious to one of ordinary skill in the art to combine the OTG specification with a standard memory format to obtain the claimed invention.

3. *Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over the OTG specification, as applied in the parent claim, in view of well-known features, as evidenced by Klaas (US 6816750 B1).*

Regarding claim 21, the OTG specification does not expressly mention the particular packaging of the circuits; however the Examiner takes Official Notice that the particular placement of circuits in a single integrated circuit is a well-known technique, as evidenced by Klass, who implements a wide variety of circuits on a chip (e.g., col. 1, lines 42-48). It would have been obvious to one of ordinary skill in the art to combine circuit packaging with the OTG specification because of the improved functionality and economy that derives from integrating function on a single chip.

Allowable Subject Matter

Claims 17-21 are allowed.

Response to Arguments

Applicant's arguments filed 3/24/05 have been fully considered but they are not persuasive.

Applicant argues that the OTG specification fails to disclose "a third circuit configured to ... control said first and second circuits" (p. 10); however, as cited previously and supra, in the OTG specification an additional protocol is used to control the first two circuits. A person of ordinary skill in the art would have known to use electronic circuit elements to enable the protocol functions. These circuit elements function as the Applicant's third circuit.

Applicant further argues that the OTG specification "is developers of PC peripherals and portable consumer electronic devices" (p. 11) and as such cannot be used to anticipate the recitation of circuits that implement these features; however the Examiner finds that a person of ordinary skill in the art would have known to use electronic circuits to implement the features of the OTG specification; in particular, its intended audience, the developers of the peripherals, would certainly have been aware of the use of electronics to implement features of the specification.

Thus Examiner maintains the rejection of claims 1-16.

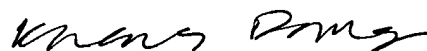
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H. Knoll whose telephone number is 571-272-3636. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

chk



Khanh Dang
Primary Examiner